

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

519764  
PCT/FR2003/001979



Applicant's or agent's file reference B 14083.3 FG	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/001979	International filing date (day/month/year) 26 juin 2003 (26.06.2003)	Priority date (day/month/year) 28 juin 2002 (28.06.2002)
International Patent Classification (IPC) or national classification and IPC C07D 307/92, 307/34, A61K 8/49, 7/00, A23L 3/3544		
Applicant COMMISSARIAT A L'ENERGIE ATOMIQUE		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.	
<input checked="" type="checkbox"/>	This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
These annexes consist of a total of <u>13</u> sheets.	
3. This report contains indications relating to the following items:	
I <input checked="" type="checkbox"/>	Basis of the report
II <input type="checkbox"/>	Priority
III <input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV <input type="checkbox"/>	Lack of unity of invention
V <input checked="" type="checkbox"/>	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI <input type="checkbox"/>	Certain documents cited
VII <input type="checkbox"/>	Certain defects in the international application
VIII <input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand 15 janvier 2004 (15.01.2004)	Date of completion of this report 07 September 2004 (07.09.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/001979

## I. Basis of the report

1. This report has been drawn on the basis of (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

☐ the international application as originally filed.

☒ the description, pages 1-48, as originally filed,  
pages \_\_\_\_\_, filed with the demand,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☒ the claims, Nos. \_\_\_\_\_, as originally filed,  
Nos. \_\_\_\_\_, as amended under Article 19,  
Nos. \_\_\_\_\_, filed with the demand,  
Nos. 1-17, filed with the letter of 21 June 2004 (21.06.2004),  
Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☒ the drawings, sheets/fig 1/4-4/4, as originally filed,  
sheets/fig \_\_\_\_\_, filed with the demand,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/fig \_\_\_\_\_

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/FR 03/01979

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-17	YES
	Claims		NO
Inventive step (IS)	Claims	1-17	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-17	YES
	Claims		NO

### 2. Citations and explanations

#### 1. Reference is made to the following documents:

D1: US-A-3 931 207 (J. WEINSTOCK) 6 January 1976  
(1976-01-06);

D2: STEFFAN, B.: "PIGMENTS FROM THE CAP CUTICULE OF  
THE BAY BOLETUS". ANGEWANDTE CHEMIE.  
INTERNATIONAL EDITION, vol. 23, no. 6, 1984,  
pages 445-447, XP002233408 VERLAG CHEMIE.  
WEINHEIM, DE, ISSN: 0570-0833;

D3: GILL, MELVYN: "A NAPHTALENOID PULVINIC ACID  
DERIVATIVE FROM THE FUNGUS", PHYTOCHEMISTRY,  
vol. 24, no. 6, 1985, pages 1351-1354, ENG;

D4: GILL, MELVYN: "PIGMENTS OF FUNGHI. XXXVII.  
PISOQUINONE, A NEW NAPHTALENOID PULVINIC ACID",  
AUST. J. CHEM., vol. 47, no. 10, 1994, pages  
1967-1977, AUSTRALIA.

#### 1. Novelty (PCT Article 33(2))

Documents D2 (compounds 4a and 4b), D3 (page 1352,  
compounds 1, 2 and 7) and D4 (page 1968, formulae 1

and 2) disclose lactone compounds that have been excluded from claim 1.

Structurally, the compounds of D1 are less relevant than those of documents D2-D4.

The subject matter of claims 1-3 fulfils the requirements of PCT Article 33(2).

The method of claims 4-7 does not refer back to the compounds of claim 1 and, as a result, the disclaimers are not included in this claim. However, the claimed method differs from those in the prior art and the novelty thereof can, therefore, be recognised.

Claims 8-11 are now worded so that they relate to a compound for use as an antioxidant agent (pharmaceutical properties). Said compound has the same formula as the one in claim 1 but the disclaimers of claim 1 are not included. Novelty can be recognised over documents D2-D4. Indeed, in the field of medical uses, such a formulation appears to be acceptable.

As a result, the subject matter of claims 1-17 can be considered to be novel and, therefore, fulfils the requirements of PCT Article 33(2).

**3. Inventive step (PCT Article 33(3))**

It follows that the problem that the present invention is intended to solve can be considered to be that of providing novel compounds, which have antioxidant properties and can be used for

therapeutic/cosmetic purposes.

None of the prior art documents suggests that the disclosed compounds have antioxidant properties.

The subject matter of claims 1-17 fulfils the requirements of PCT Article 33(3).

4. Contrary to the requirements of PCT Rule 5.1(a)(ii), the description does not indicate the relevant prior art disclosed in documents D2-D4, nor does it cite said documents.